

LABOR SERVICES DIVISION[875]

Adopted and Filed

Rule making related to boiler and pressure vessel codes

The Boiler and Pressure Vessel Board hereby amends Chapter 91, “General Requirements for All Objects,” Iowa Administrative Code.

Legal Authority for Rule Making

This rule making is adopted under the authority provided in Iowa Code section 89.14(5).

State or Federal Law Implemented

This rule making implements, in whole or in part, Iowa Code chapter 89.

Purpose and Summary

This rule making updates and clarifies the rules and also adopts by reference the most recent version of national consensus codes pertaining to boilers and pressure vessels. This rule making adopts CSD-1 (2021), which was adopted by the American National Standards Institute on September 21, 2021. The updates in CSD-1 are mostly editorial or clarifications. There are several minor changes to standards for specific boilers. CSD-1 (2021) is applicable to the assembly, installation, maintenance, and operation of controls and safety devices on automatically operated boilers directly fired with gas, oil, gas-oil, or electricity.

Public Comment and Changes to Rule Making

Notice of Intended Action for this rule making was published in the Iowa Administrative Bulletin on September 21, 2022, as **ARC 6541C**. No public comments were received. No changes from the Notice have been made.

Adoption of Rule Making

This rule making was adopted by the Board on October 26, 2022.

Fiscal Impact

This rule making has no fiscal impact to the State of Iowa.

Jobs Impact

After analysis and review of this rule making, no impact on jobs has been found.

Waivers

Any person who believes that the application of the discretionary provisions of this rule making would result in hardship or injustice to that person may petition the Board for a waiver of the discretionary provisions, if any, pursuant to 875—Chapter 81.

Review by Administrative Rules Review Committee

The Administrative Rules Review Committee, a bipartisan legislative committee which oversees rule making by executive branch agencies, may, on its own motion or on written request by any individual or group, review this rule making at its [regular monthly meeting](#) or at a special meeting. The Committee’s meetings are open to the public, and interested persons may be heard as provided in Iowa Code section 17A.8(6).

Effective Date

This rule making will become effective on January 4, 2023.

The following rule-making actions are adopted:

ITEM 1. Amend subrule 91.1(6) as follows:

91.1(6) Control and safety device code adopted by reference. Controls and Safety Devices for Automatically Fired Boilers (CSD-1) (2018) (2021) is adopted by reference, and installations after ~~April 15, 2020~~ December 1, 2022, shall comply with it. Reporting requirements concerning CSD-1 are set forth at rule 875—90.11(89).

ITEM 2. Amend subrule 91.8(1) as follows:

91.8(1) General requirements.

- a. Leaky tubes shall be replaced or plugged.
- b. Tube plugs shall be made of a material which is compatible with the material of the boiler tube being plugged and shall be welded into place or manufactured to be expanded into the tube sheet or drum.
- c. ~~All plugged boiler tubes shall be replaced prior to the next required certificate inspection.~~
- d. c. The maximum number of tubes that ~~shall may~~ be plugged is shall be the lesser of the number specified by the OEM or ~~the number specified by an engineer experienced in boiler design.~~
- d. Documentation of the maximum number of tubes that may be plugged ~~as determined by the OEM or engineer~~ shall be kept on site, and a copy shall be ~~mailed~~ supplied to the division of labor services by either mail or email.

ITEM 3. Amend subrule 91.8(2) as follows:

91.8(2) Fire tube boilers. ~~In a fire tube boiler, a tube that is adjacent to a plugged tube shall not be plugged.~~

- a. A tube that is adjacent to a plugged tube shall not be plugged.
- b. All plugged boiler tubes shall be replaced prior to the next required certificate inspection.

ITEM 4. Amend subrule 91.8(3) as follows:

91.8(3) Water tube boilers, unfired boilers, or process steam generators. ~~To determine the maximum number of tubes that may be plugged in a water tube boiler, unfired boiler, or process steam generator, an engineer experienced in boiler design shall consider the operational effect on the water side pressure boundary or membrane and the effect on the combustion process throughout the boiler. Water wall tubes may not be plugged if the tubes form a separation wall between products of combustion and the outside atmosphere or a separation of the gas passes in a multiple gas pass boiler. Water wall tubes that form a separation wall between products of combustion and the outside atmosphere or a separation of the gas passes in a multiple gas pass boiler shall not be plugged.~~

ITEM 5. Amend subrule 91.10(1) as follows:

91.10(1) Clearances.

a. This paragraph applies to objects installed after December 1, 2022. Minimum clearance on all sides of objects shall be 36 inches, or the manufacturer's recommended service clearances if they allow sufficient room for inspection. Where a manufacturer identifies in the installation manual or other document that the unit requires more than 36 inches of service clearance, those dimensions shall be followed. Manholes shall have five feet of clearance between the manhole opening and any wall, ceiling or piping that would hinder entrance or egress from the object.

~~a. b.~~ All This paragraph applies to all objects installed after December 1, 2021, and before December 1, 2022. All objects shall be installed with the clearances identified in NBIC Part 1.

~~b. c.~~ This paragraph applies to objects installed after September 20, 2006, and before December 1, 2021. Minimum clearance on all sides of objects shall be 24 inches, or the manufacturer's recommended service clearances if they allow sufficient room for inspection. Where a manufacturer identifies in the installation manual or other document that the unit requires more than 24 inches of service clearance, those dimensions shall be followed. Manholes shall have five feet of clearance between the manhole opening and any wall, ceiling or piping that would hinder entrance or egress from the object.

~~e.~~ d. All objects installed prior to September 20, 2006, shall be so located that adequate space is provided for the proper operation, inspection, and necessary maintenance and repair of the object and its appurtenances.

ITEM 6. Amend subrule 91.10(4) as follows:

91.10(4) *Carbon monoxide detector or alarm.* The owner or user shall install and maintain a carbon monoxide detector or alarm in an equipment room where one or more fuel-fired objects are located in accordance with the detector or alarm manufacturer's recommendations.

~~a. The carbon monoxide detector or alarm shall have a visible display showing the parts per million value of the carbon monoxide that is detected.~~

~~b. The carbon monoxide detector or alarm shall be hardwired to the building power and shall have a battery backup with visible and audible alarms that identify when the battery backup power supply is low.~~

~~c. The carbon monoxide detector or alarm shall be tested daily and shall be calibrated in accordance with the manufacturer's recommendations, or every 18 months after installation of the detector. The testing and calibration shall be recorded in a log book that is readily accessible to the inspectors and owner's staff.~~

~~d. The carbon monoxide detector or alarm shall have visible and audible alarms capable of being heard and seen both inside and outside of the equipment room.~~

[Filed 10/28/22, effective 1/4/23]

[Published 11/30/22]

EDITOR'S NOTE: For replacement pages for IAC, see IAC Supplement 11/30/22.